Carbohydrate Research, 238 (1993) C7–C10
Elsevier Science Publishers B.V., Amsterdam

CONTENTS

A rapid method for the determination of the degree of *N*-acetylation of chitin–chitosan samples by acid hydrolysis and HPLC
F. Niola, N. Basora, E. Chornet and P.F. Vidal (Sherbrooke, Canada) 1

Characterization of chitosans via coupled size-exclusion chromatography and multiple-angle laser light-scattering technique
R.G. Beri (Worcester, MA, USA), J. Walker, E.T. Reese (Natick, MA, USA) and J.E. Rollings (Worcester, MA, USA) 11

Synergy of the agarose–carob galactomannan blend inferred from NMR and rheological studies
T. Turquois, F.-R. Taravel and C. Rochas (Grenoble, France) 27

Melting and glass transitions of low molecular weight carbohydrates
Y. Roos (Helsinski, Finland) 39

A Monte Carlo method for conformational analysis of saccharides
T. Peters (Frankfurt, Germany), B. Meyer, R. Stuike-Prill (Athens, GA, USA), R. Somorjai and J.-R. Brisson (Ottawa, Canada) 49

Preparation, isolation, and characterization of novel heterogeneous branched cyclomalto-oligosaccharides having β-D-galactosyl residue(s) on the side chain
K. Koizumi, T. Tanimoto (Nishinomiya, Japan), K. Fujita, K. Hara, N. Kuwahara (Yokohama, Japan) and S. Kitahata (Osaka, Japan) 75

Synthesis and immunoreactivity of poly(acrylamide) copolymers containing C-3- and C-7-modified, carboxyl-reduced, 4-*O*- and 5-*O*-phosphorylated Kdo residues
P. Kosma, M. Strobl, L. März (Vienna, Austria), S. Kusumoto, K. Fukase (Osaka, Japan), L. Brade and H. Brade (Borstel, Germany) 93

Syntheses of modified 2-chloro-4-nitrophenyl β-maltopentaosides as useful substrates for assay of human alpha amylase
S. Tokutake, R. Uchida (Chiba, Japan), K. Kotani, K. Saito (Tokyo, Japan) and N. Yamaji (Chiba, Japan) 109

Synthesis of a selectively protected trisaccharide building block that is part of xylose-containing carbohydrate chains from N-glycoproteins
J. Kerékgyártó (Debrecen, Hungary), J.G.M. Van der Ven, J.P. Kamerling (Utrecht, Netherlands), A. Lipták (Debrecen, Hungary) and J.F.G. Vliegenthart (Utrecht, Netherlands) 135

Synthesis of 5-deoxy-5-fluoro- and 5-deoxy-5,5-difluoro-netilmicin
E. Umemura, T. Tsuchiya, Y. Koyama and S. Umezawa (Kawasaki, Japan) 147

Synthesis of 8-aminooctyl glycopyranosides and of their conjugates with poly(L-glutamic acid) having a 2-(4-hydroxyphenyl)ethylamino group for radiolabeling
T. Sugawara, H. Susaki, H. Nogusa, A. Gonsho, H. Iwasawa, K. Irie, Y. Ito and M. Shibukawa (Chiba, Japan) 163

An alternative synthesis of methyl 2,3-anhydro-4,6-*O*-benzylidene-α-D-allopyranoside using carbonate esters
H.W.C. Raaijmakers, B. Zwanenburg and G.J.F. Chittenden (Nijmegen, Netherlands) . . . 185

Syntheses of subtractively modified 2-chloro-4-nitrophenyl β-maltopentaosides and their application to the differential assay of human alpha-amylases
S. Tokutake, T. Oguma, K. Tobe (Chiba, Japan), K. Kotuni, K. Saito (Tokyo, Japan) and N. Yamaji (Chiba, Japan) . . . 193

Synthesis of α,α-trehalose 2,3- and 2,3′-diesters with palmitic and stearic acid: potential immunoreactants for the serodiagnosis of tuberculosis
H.H. Baer and X. Wu (Ottawa, Canada) . . . 215

Preparation of 6-*O*-alkylcelluloses
T. Kondo (Montreal, Canada) . . . 231

Determination of the structures of cystocarpic carrageenans from *Gigartina skottsbergii* by methylation analysis and NMR spectroscopy
M. Ciancia, M.C. Matulewicz (Buenos Aires, Argentina), P. Finch (Egham, United Kingdom) and A.S. Cerezo (Buenos Aires, Argentina) . . . 241

The gum exudate of *Encephalartos longifolius* Lehm. (female): further hydrolytic studies
D.C. Vogt and A.M. Stephen (Rondebosch, South Africa) . . . 249

Structure of the O56 antigen of *Escherichia coli*, a polysaccharide containing 7-substituted α-*N*-acetylneuraminic acid
G. Kogan (Freiburg-Zähringen, Germany), A.S. Shashkov (Moscow, Russian Federation), B. Jann and K. Jann (Freiburg-Zähringen, Germany) . . . 261

Studies of the length of homogalacturonic regions in pectins by acid hydrolysis
J.-F. Thibault, C.M.G.C. Renard, M.A.V. Axelos, P. Roger and M.-J. Crépeau (Nantes, France) . . . 271

Facile enzymic *de novo* synthesis and NMR spectroscopic characterization of D-tagatose 1,6-bisphosphate
O. Eyrisch, G. Sinerius and W.-D. Fessner (Freiburg, Germany) . . . 287

Notes

High-performance anion-exchange chromatography of saturated and unsaturated oligogalacturonic acids
H.-P. Lieker, K. Thielecke, K. Buchholz (Braunschweig, Germany) and P.J. Reilly (Ames, IA, USA) . . . 307

Crystal and molecular structure of deca-*O*-acetyl-L-*galacto*-L-*gulo*-decitol
P. Köll (Oldenburg, Germany), J. Kopf, M. Morf, B. Zimmer (Hambrug, Germany) and J.S. Brimacombe (Dundee, United Kingdom) . . . 313

Crystal and molecular structure of octa-*O*-acetyl-L-*threo*-D-*galacto*-octitol
P. Köll (Oldenburg, Germany), J. Kopf, M. Morf, B. Zimmer (Hambrug, Germany) and J.S. Brimacombe (Dundee, United Kingdom) . . . 317

α-D-Glucopyranosyl 1,3-anhydro-β-D-*xylo*-hexulofuranoside: an intermediate in the alkaline hydrolysis of α-D-glucopyranosyl 3,4-anhydro-β-D-*lyxo*-hexulofuranoside
K. Čapek, E. Čadová and P. Sedmera (Prague, Czechoslovakia) . . . 321

Esterification of D-glucose derivatives by oxolinic acid
A. Wadouachi, M. Brazier, G. Demailly, R. Uzan and D. Beaupere (Amiens, France) ... 327

Structure of the O24 antigen of *Escherichia coli*, a neuraminic acid-containing polysaccharide
G. Kogan, B. Jann and K. Jann (Freiburg-Zähringen, Germany) 335

The use of a synthetic dideoxygenated pentasaccharide as a specific acceptor for *N*-acetylglucosaminyltransferase-III
G. Alton, Y. Kanie and O. Hindsgaul (Edmonton, Canada) 339

Author index C1

Subject index C3

Contents C7